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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/716,113	11/16/2000	STEPHEN JOHN RUIZ	004164.P004	4948

7590

08/18/2006

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EXAMINER

NGUYEN, XUAN LAN T

ART UNIT

PAPER NUMBER

3683

DATE MAILED: 08/18/2006

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/716,113  
Filing Date: November 16, 2000  
Appellant(s): RUIZ, STEPHEN JOHN

**MAILED**

**AUG 18 2006**

**GROUP 3600**

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Steven Laut  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 06/05/06.

**(1) *Real Party in Interest***

A statement identifying the real party in interest is contained in the brief.

**(2) *Related Appeals and Interferences***

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

**(3) *Status of Claims***

The statement of the status of the claims contained in the brief is incorrect. Claims 1, 3-21 and 23-40 are pending with claims 4, 7-20, 24 and 27-40 being withdrawn from consideration in the present application. Claims 1, 3, 5, 6, 21, 23, 25 and 26 are rejected. Claims 1, 3, 5, 6, 21, 23, 25 and 26 are appealed.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the ground of rejection to be reviewed on appeal in the brief is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

3,403,760

CASKEY

10-1968

**(9) Grounds of Rejection**

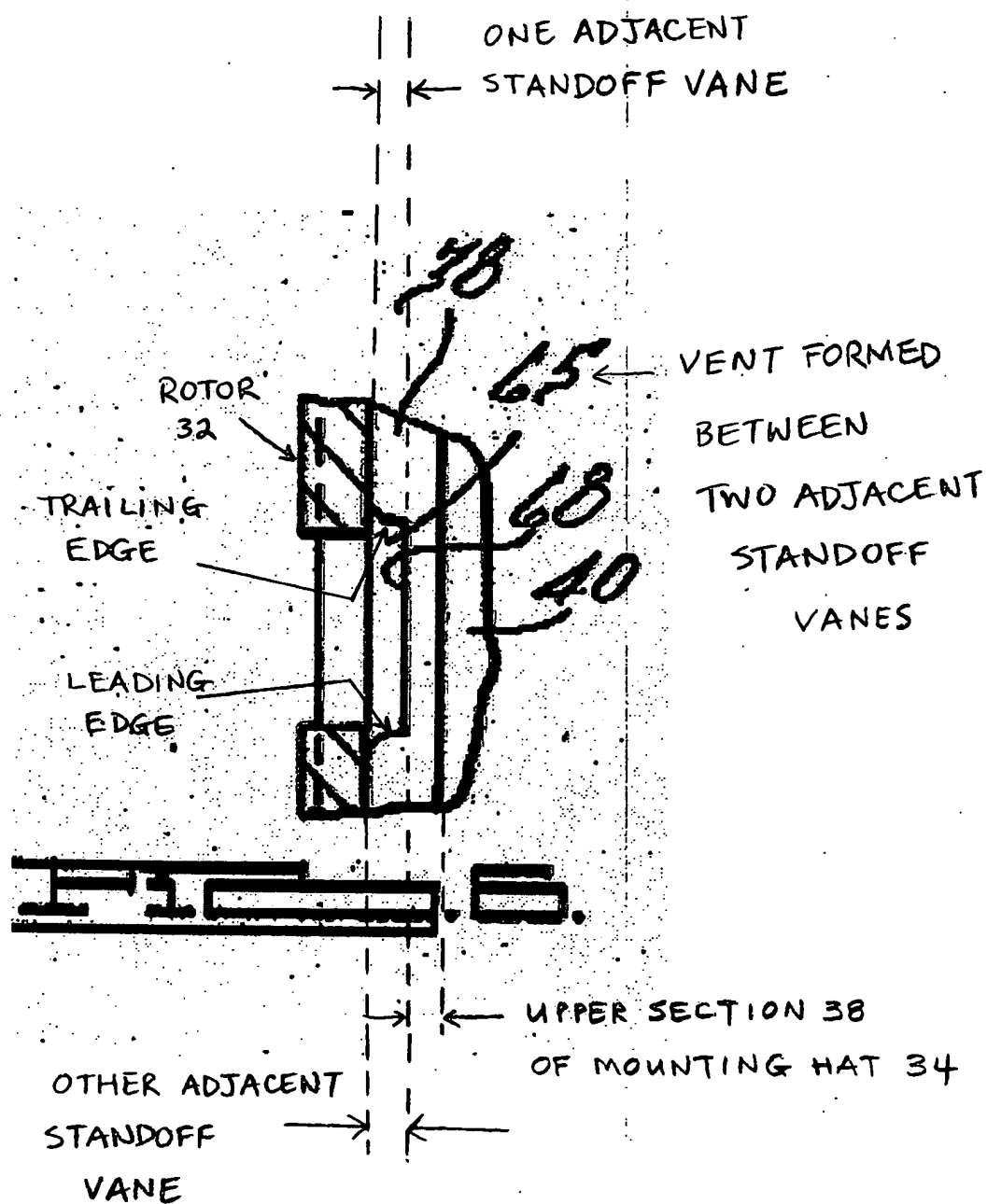
The following ground(s) of rejection are applicable to the appealed claims:

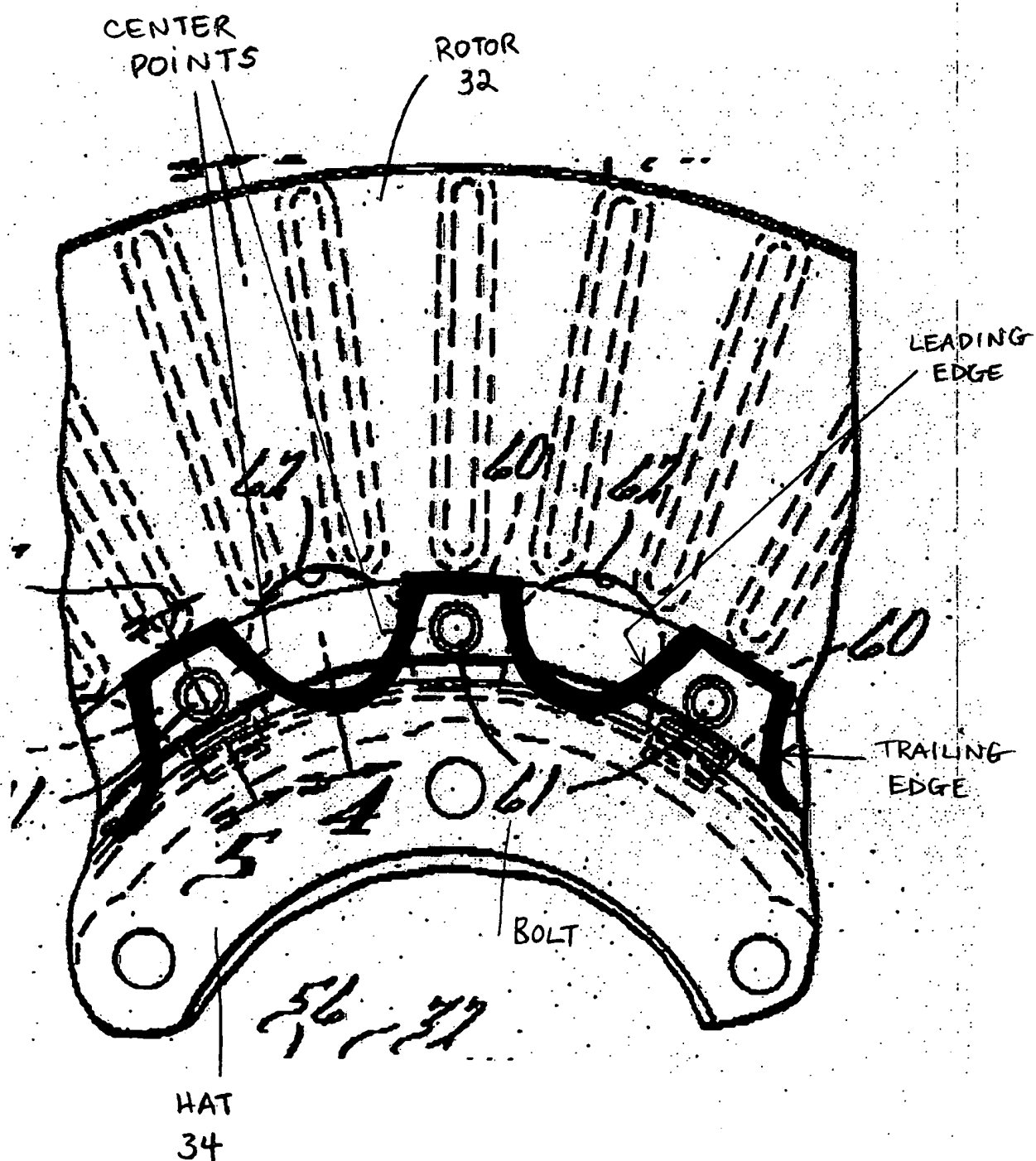
Claims 1, 3, 5, 6, 21, 23, 25 and 26 rejected under 35 U.S.C. 102(b). This rejection is set forth in a prior Office Action, mailed on 1/25/05. The rejection is repeated below for the Board's convenience.

Re: claim 1, Caskey shows a mounting hat 34 for a brake rotor 32, as in the present invention, comprising: a lower section 36 coupled to an upper section 38, a plurality of aerodynamically shaped standoff vanes as marked below in figures 3 and 6, note that Caskey does not provide a reference number for the standoff vanes, as shown in figure 3, the standoff vanes are at the same locations as tabs 60 wherein the bolts 61 are going through both the standoff vanes and the tabs 60 to attach the upper section 38 to the rotor 32; Caskey shows the leading edge and the trailing edge of the standoff vane to be curved and have different shapes in that each edge curves in an opposite direction, see figure 3 below wherein the line representing the standoff vanes has been bolded to distinguish the standoff vanes from the tabs 60, the standoff vanes space apart the upper section 38 from the brake rotor 32 as shown in figure 6; and a plurality of vents, recesses 65, formed between adjacent aerodynamically shaped standoff vanes, wherein the vents are circumferentially distributed on the upper section, as shown in figure 3, and air located within said mounting hat and air deflected from said brake rotor are induced to flow through the vents 65 in a direction outward from a radial

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interior of said mounting hat to a radial exterior of said mounting hat, as stated in column 3, lines 53-57 and column 3, line 63 to column 4, line 2.







Re: claim 3, figure 6 shows the leading edge and trailing edge of the plurality of aerodynamically shaped standoff vanes are one of stepped up and ramped up from the upper section towards the top of the vanes.

Re: claim 5, figure 6 shows the leading edge and the trailing edge to be asymmetrical from a center point along each of the leading edge and the trailing edge. A center point has been interpreted as marked in figure 3 above. As shown, the top of each leading edge and trailing edge is asymmetrical from the bottom of each leading edge and trailing edge with respect to the marked center point.

Re: claim 6, figure 3 shows bolts 61.

Re: claim 21, Caskey shows a brake rotor, as in the present invention, comprising: a rotor 32, a hub 34 having a plurality of aerodynamically shaped standoff vanes as marked above in figures 3 and 6, note that Caskey does not provide a reference number for the standoff vanes, as shown in figure 3, the standoff vanes are at the same locations as tabs 60 wherein the bolts 61 are going through both the standoff vanes and the tabs 60 to attach the upper section 38 to the rotor 32; each having a curved leading edge and a curved trailing edge, see figure 3 above wherein the line representing the standoff vanes has been bolded to distinguish the standoff vanes from the tabs 60; a plurality of vents 65 are circumferentially distributed between the hub and the rotor as shown in figures 3 and 6, the leading edge and the trailing edge each having different shapes in that each edge curves in an opposite direction, air located within the hub 34 is induced to flow through the vents 65 along the braking surface 54 to

cool the rotor, as discussed in column 3, lines 53-57 and column 3, line 63 to column 4, line 2.

Re: claim 23, figure 6 shows the leading edge and trailing edge of the plurality of aerodynamically shaped standoff vanes are one of stepped up and ramped up from the upper section towards the top of the vanes.

Re: claim 25, figure 6 shows the leading edge and the trailing edge to be asymmetrical from a center point along each of the leading edge and the trailing edge. A center point has been interpreted as marked in figure 3 above. As shown, the top of each leading edge and trailing edge is asymmetrical from the bottom of each leading edge and trailing edge with respect to the marked center point.

Re: claim 26, figure 3 shows bolts 61.

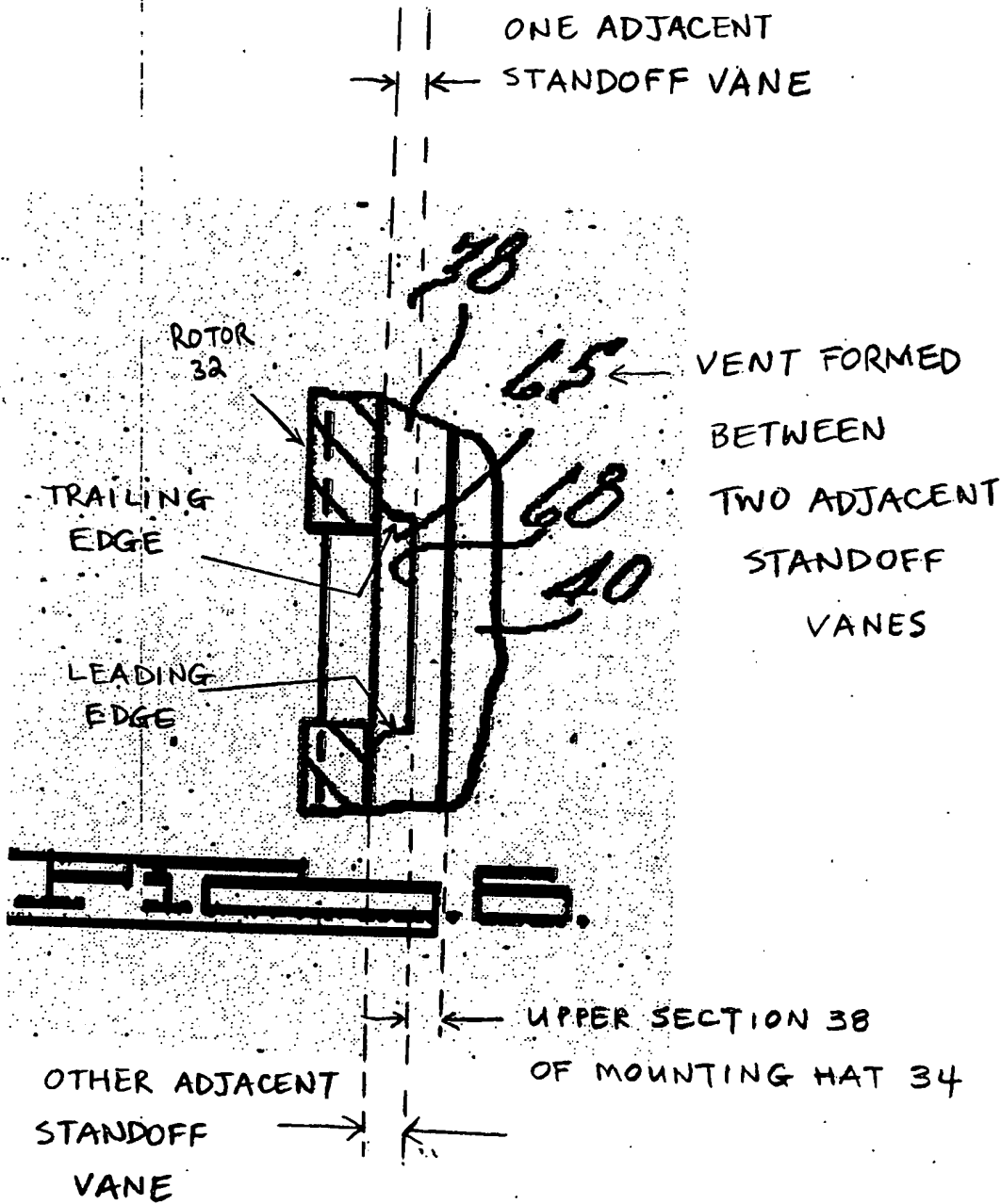
**(10) Response to Argument**

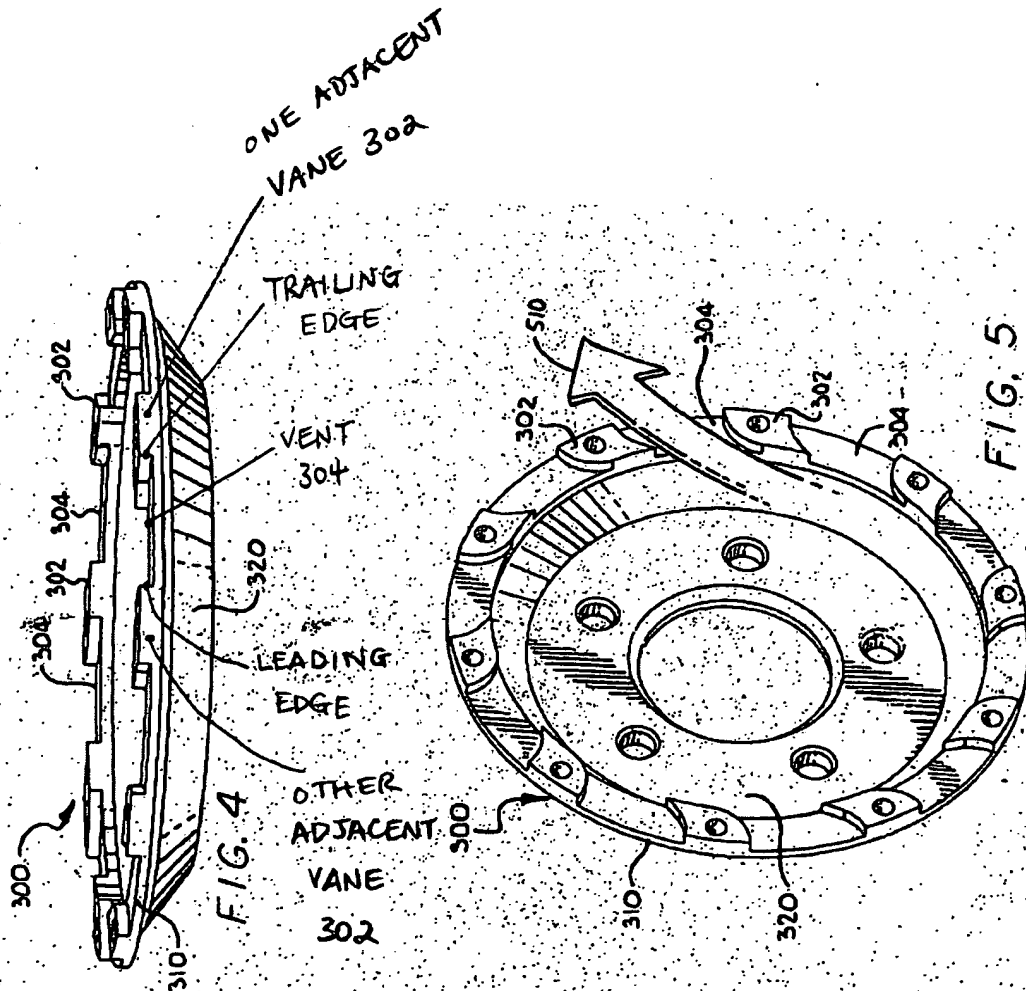
*Appellant argues in page 5, last paragraph, that recess 65 is formed from flange 38; the tabs have same shaped leading and trailing edge; and tab 60 and recess 65 are two different items.*

Appellant is correct in that recess 65 is formed from flange 38. As clearly shown and marked by the Examiner in figure 6 of Caskey, flange 38 comprises standoff vanes with recesses 65 formed in between the vanes. In an effort to show the leading edge and trailing edge of each standoff vane more clearly, figure 6 is employed. The marked up trailing edge and leading edge in figure 6 belong to two adjacent vanes with the recess 65 formed in between. The recess 65 of Caskey would be equivalent to a vent

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304 of the instant invention wherein vent 304 is formed between two adjacent vanes 302 with one leading edge of one vane 302 on one side and one trailing edge of the other vane 302 on the other side. Figure 4 of the instant invention as shown below has a similar view of the vent 304 as the recess 65 as shown in figure 6 of Caskey. In conclusion, recess 65 of Caskey is formed from an upper portion flange 38 between two adjacent standoff vanes. The same as Appellant's vent 304 formed on upper portion 310 between two adjacent standoff vanes 302.





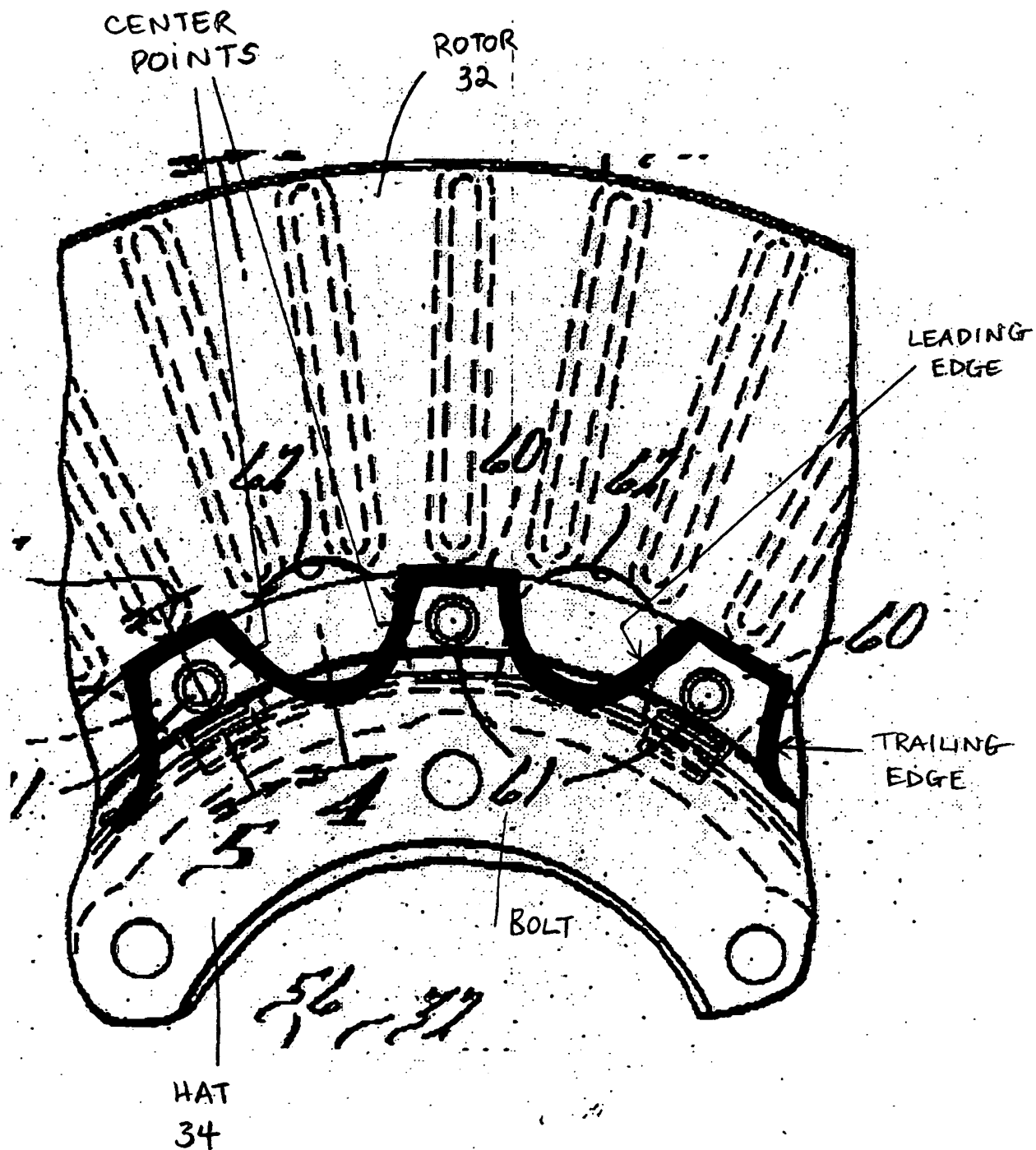
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Appellant also argues that Caskey's leading edge and trailing edge are of the same shape while Appellant's leading edge and trailing edge are of different shapes. The Examiner maintains that Caskey's leading edge and trailing edge of a standoff vane are of different shapes in that each edge curves in an opposite direction, as shown in figure 3 of Caskey above.

Appellant further argues that tab 60 and recess 65 are two different items. Appellant is correct in that a tab 60 belongs to the rotor 32 and the recess 65 is formed from the flange 38 of the mounting hat 34. As mentioned above, Caskey does not provide a reference number for the standoff vanes of the mounting hat 34. Since the standoff vanes of the mounting hat 34 and the tabs 60 of the rotor are located at the same locations for the mounting hat to be mounted to the rotor, the reference number 60 was meant to point to the locations of the standoff vanes. However, further confusions stem from the intention to employ reference number 60. The Examiner apologizes for the confusion. The rejection above has been corrected to clearly show the standoff vanes, the recess 65 and the tabs 60. Note that although reference number 60 was being confusing in the previous rejection, the wording of the rejection and the markings of figures 3 and 6 as presented in the previous rejection were correct in pointing out the standoff vanes, the leading edge and the trailing edge.

*Appellant argues in page 6 that leading edge and trailing edge in figure 3 as marked by the Examiner is incorrect in that the marked up edges belong the semi-circular opening 62.*

The Examiner maintains that the leading edge and trailing edge in figure 3 as marked by the Examiner is correct. The leading edge and trailing edge as marked by the Appellant in fact belong to the semi-circular opening 62. An enlarged reproduced marked up figure 3 is included below to clearly show the standoff vanes wherein the line representing the standoff vanes has been bolded to distinguish over the tabs 60. Since each tab 60 and each standoff vane are located at each same location through out the circumference of the mounting hat for each bolt 61 to fasten the rotor 32 and the hat 34 together, it is rather difficult to distinguish them without the bolding of the line.



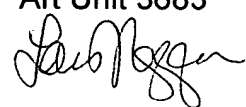


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For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Lan Nguyen  
Primary Examiner  
Art Unit 3683

 8/15/06

XLN  
August 15, 2006

Conferees  
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Charles Marmor *CM*  
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